

CENTRAL INTELLIGENCE AGENCY  
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<b>COUNTRY</b>	USSR (Kalinin, Moscow Oblasts)/Germany (Soviet Zone)	<b>REPORT</b>		25X1
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**Summary**

1. During the period 1945-1953 a group of some 150 German scientists and engineers was employed by the Russians at Bleicherode and later in Russia, on rocket studies. In Russia the group was at first split between NI.88 at Podlipki on the N.E. outskirts of Moscow and a branch establishment on the lake island of Gorodomlya near Ostashkov; later all were united on the Island.

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2. The initial task of the group was the improvement of the A.4 (V.2) ballistic rocket. This was followed by more ambitious long-range rocket studies, culminating in a design to carry a 3,000 kg. warhead to a distance of 3,000 km. This was the preferred solution to a requirement received from the Russian Minister of Armaments USTINOV. An alternative solution was also considered, in the form of an aircraft-like missile. Later the group tackled an A.A. rocket problem. The work was for the most part theoretical but experimental verification of the novel features in the design studies was planned, and in some cases carried out.

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The projects include: --

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R-10.—A much modified and improved A.4 to carry 1,000 kg. to 900 km.

R-14.—A long-range single-stage ballistic rocket to carry 3,000 kg. to 3,000 km.

R-15.—A ram-jet powered winged missile of the same performance as the R-14.

(K-1).—Russian development of an A.4 of improved range.

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**PEENEMUENDE: EFFECTS OF THE 1943 BOMBING**

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**I**

Protective measures against air attack at Peenemuende were inadequate. Those in authority were concerned, almost entirely—yet even here, as it proved, insufficiently—with the safety of the installations. Only after strong representations from the technical Director (v. Braun) did General Dornberger decide to build a shelter for personnel. This shelter was built within the works, and was useless except during day bombing raids. The family lines boasted of no more than a few open trenches, the inadequacy of which was demonstrated in the course of the very first raid.

**II**

The effectiveness of the first great raids in August 1943 lay in three factors:—

- (a) Destruction of technical installations. Damage in the Development factory proper was slight. Serious harm occurred right in my own laboratory, where we were working on the transmission of measured data and on fuel-cut-off procedure. The destruction of the sheds next to the so-called "Grosses Messhaus" was of particular importance. These sheds contained the prototype trajectory simulator (Bahnmodell) which was to make possible an experimental investigation of the A.4 guidance system. The reconstruction of the Bahnmodell absorbed 5–6 months, and delayed guidance development accordingly. Further delays in the controls field were occasioned by the destruction of numerous measuring equipment, prototypes of which were under construction in the same shed. Major damage was done in the Werk Sued, where originally the test series of rockets for Peenemuende trials and for troop training purposes were to have been assembled. These splendid buildings could thereafter, for better or for worse, be only used for modifying the series products from the Mittelwerk. In consequence the trials suffered a serious delay, and there were continual differences with the O.C. Troop Training as to the number of rockets he could draw from production.
- (b) The loss of personnel was critical. Many bombs fell in the family lines bringing disaster, especially to those in the open trenches. Among other important specialists killed was Dr. Thiel, head of propulsion development, with his family. His vacant post had to be filled by an outsider, Dr. Schilling, who could only work himself in gradually. Altogether we lost 800 killed in this attack.
- (c) The worst effect of all, however, was the anxiety that gripped us. From fear of further raids, many important development sections were moved from Peenemuende, e.g., the controls and measurements section to Pudagla, the laboratory for valves and jigs to Anklam and the section for construction of mobile fuel-cut-off transmitters to Dresden. The sections' dispersal took a lot of time, for no preparations had been made to receive them. Understandably enough, efforts were made to give the impression to higher authority that work was in full swing again 2–3 weeks later in the new locations, but an impartial observer would have to admit a delay of 3–4 months. Added to all this were the additional difficulties of communication between sections. Conferences had to be organised, requiring time-consuming journeys. Contact became worse and worse between laboratories, test-stands, and firing ranges. The effect of this on the work can be imagined. Characteristic of the state of affairs at that time was an instruction, to the effect that senior staff were not to be away from Peenemuende on duty trips for more than 20 days in the month.

**III**

Summarising, it may be said that the bombing raid on Peenemuende hit us at that phase of development in which controls and guidance were the central theme of the work. My estimate is that the resulting delay in development amounted to more than 4 months. I beg you to consider, however, that this has been written, from memory, more than 10 years after the event. A more exact evaluation would no doubt be possible on the basis of my diaries (handed over in April 1945).

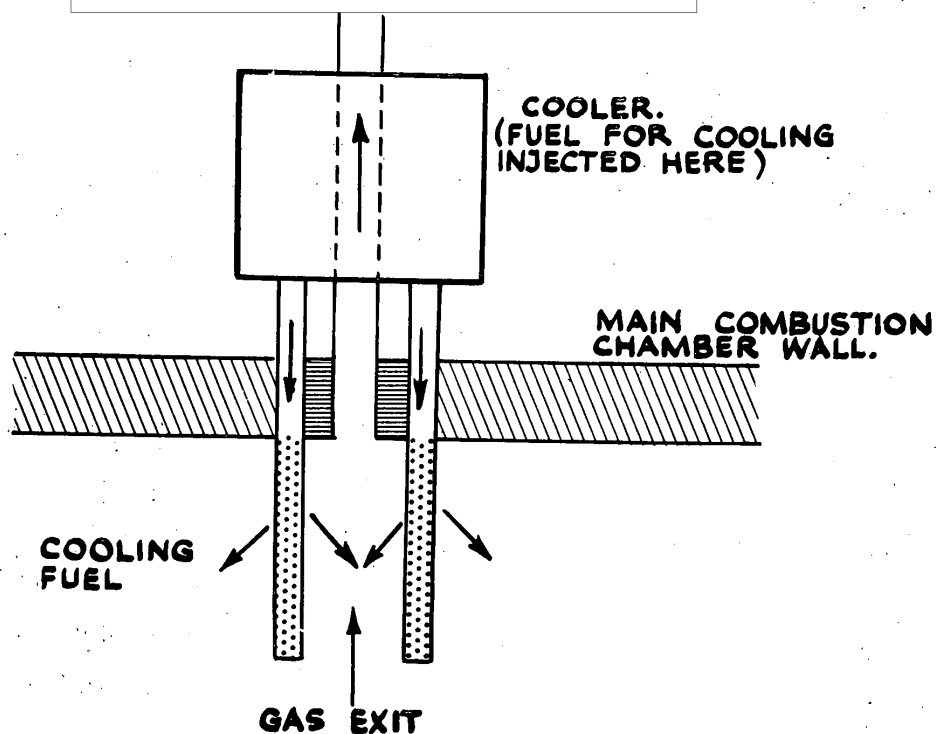
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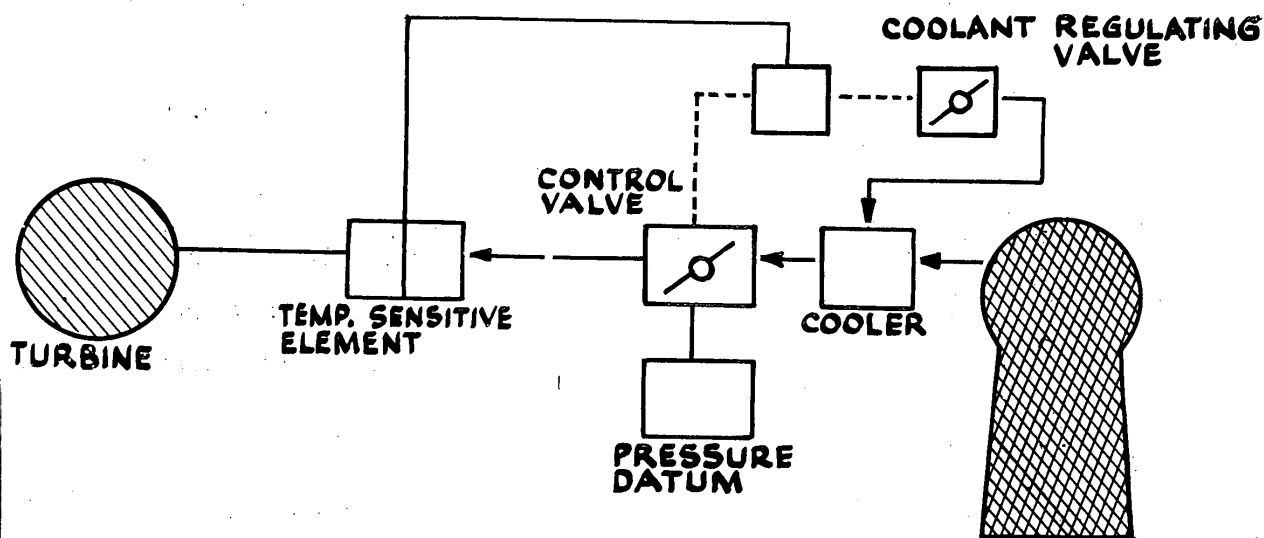
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**FIG. 1 GAS GENERATOR**



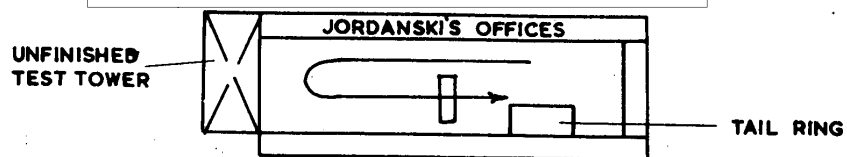
**FIG. 2 R.I.O THRUST CONTROL SYSTEM.**

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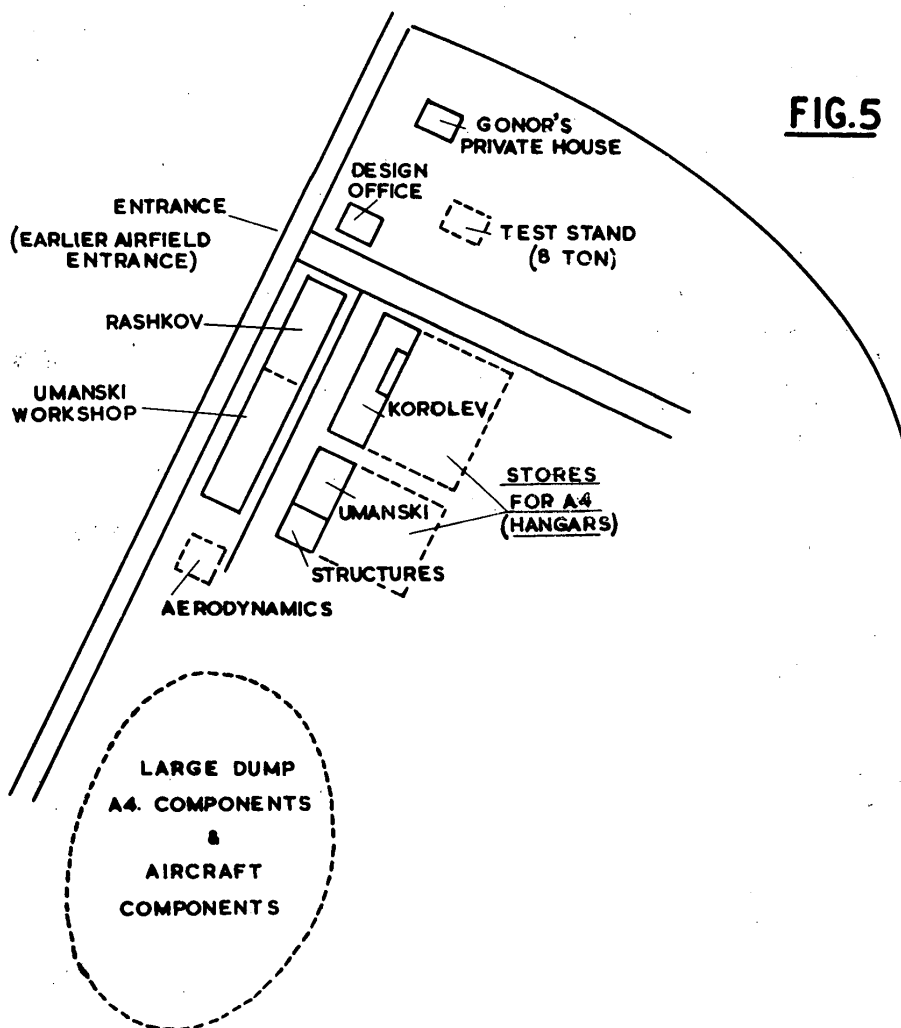
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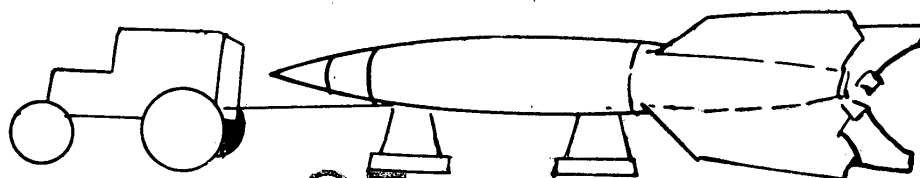
**FIG. 4**

**A4 Assembly line in Corpus II**



**FIG. 5**

**Layout of experimental area NII88**



**FIG. 6**

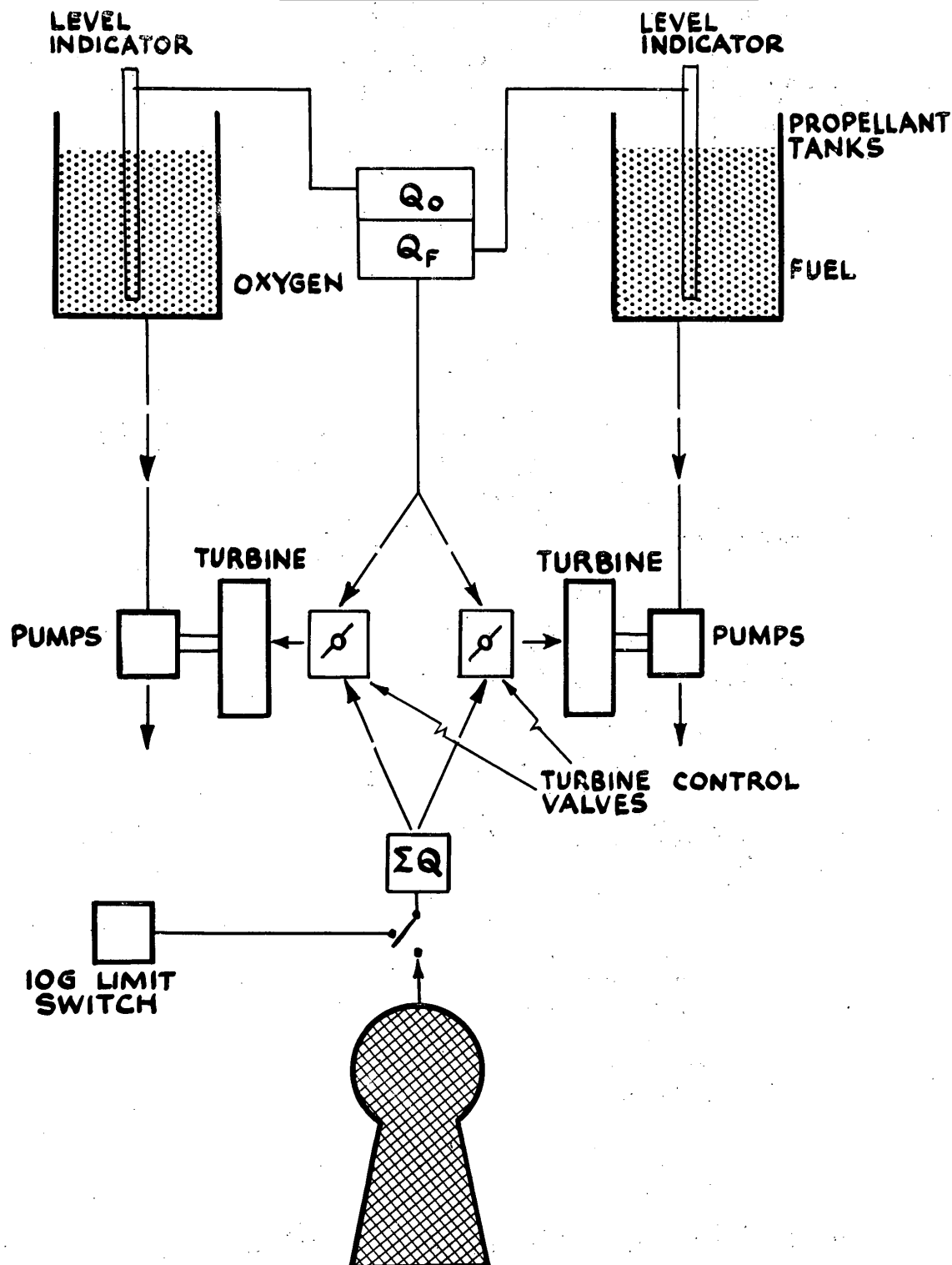
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**FIG. 3 SCHEMATIC OF R14 THRUST AND MIXTURE CONTROL SYSTEMS.**

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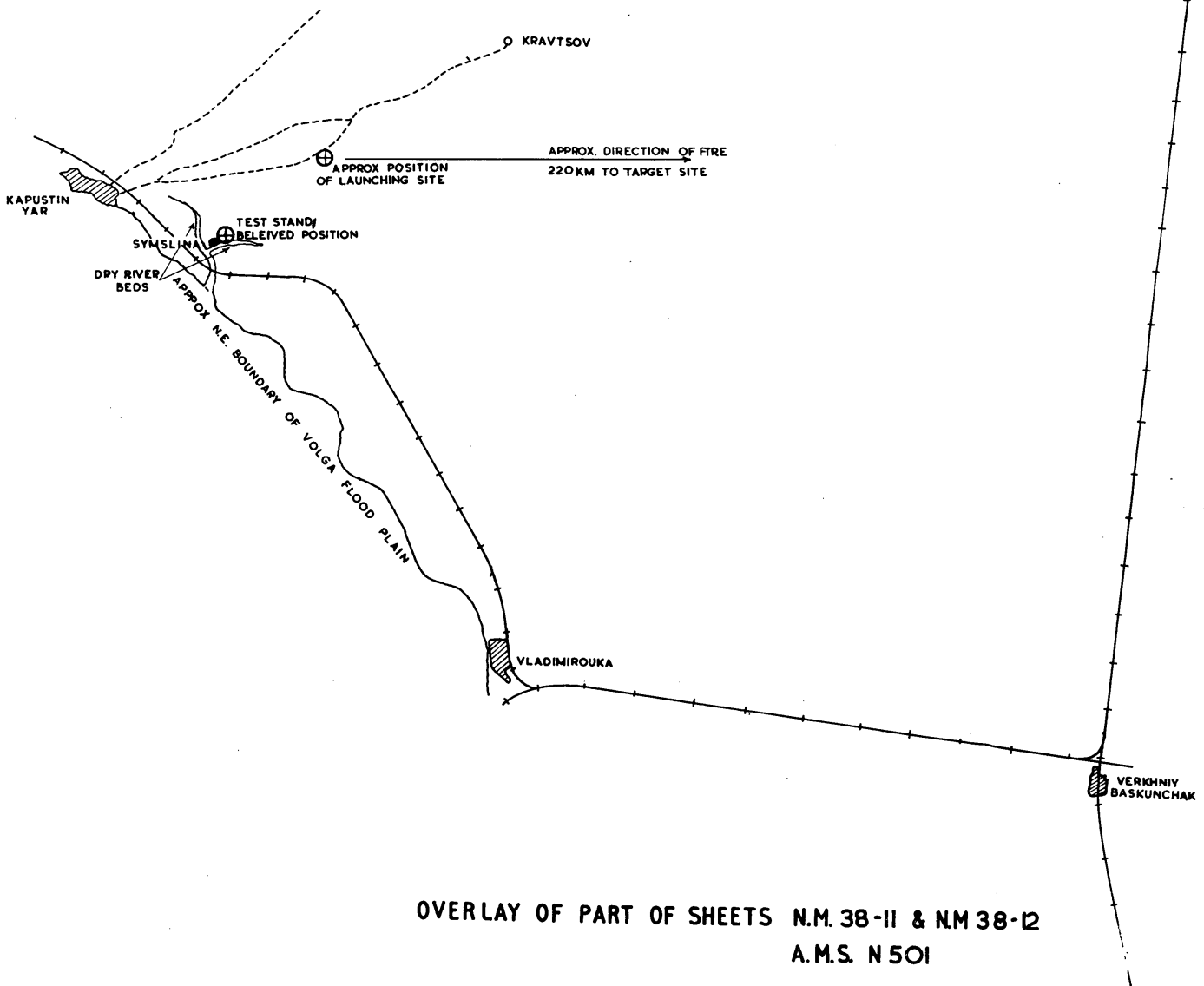
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FIG. 7

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